



PAC™-L

Modified Natural Cellulosic Polymer

Description PAC™-L modified natural cellulosic polymer provides filtration control in most water-based drilling fluids without substantially increasing viscosity. PAC-L polymer, when added to a QUIK-GEL® or BORE-GEL® bentonite slurry, yields a fluid system suitable for drilling in sandy formation. PAC-L polymer can be added to vegetable or mineral oil to provide an oil-based fluid suspension, which can be poured into drill string directly.

Applications/Functions

The use of PAC-L cellulosic polymer promotes the following:

- Filtration control in fresh or brackish water-based drilling fluids
- Encapsulation of shale to prevent swelling and disintegration
- Borehole stability in water sensitive formations
- Minimized rod chatter, rotational torque and circulating pressure
- Improved hole cleaning and core recovery

Advantages

- Effective in fresh water, salt water and brackish water-based drilling fluids
- Effective in small quantities for filtration control
- Does not significantly increase fluid viscosity
- Non-fermenting
- Resistant to harsh environments and contaminants
- Free-flowing powder for easy addition
- Compatible with other Baroid drilling fluid additives

Typical Properties

- | | |
|-----------------------------|---------------------|
| • Appearance | White to tan powder |
| • pH (1% aqueous solution) | 7.75 |

Recommended Treatment

- Using a Venturi Mixer, or into vortex of a high-speed stirrer, add slowly and uniformly to the entire circulating system.

Recommended Treatment (continued)

Approximate Amounts of PAC™-L polymer Added to Water Based Fluids		
Desired Condition/Result		
<i>Added to fresh or salt water</i>	lb/100 gal	kg/m³
• To help stabilize water sensitive formation	3 – 7	4 – 8.5
• To help reduce torque and lower circulating pressure	0.5 - 2	0.6 – 2.4
<i>Added to QUIK-GEL® slurry (25 lb/100 gallons) or (30 kilograms per m³)</i>	lb/100 gal	kg/m³
• To help reduce filtration rate and improve borehole stability	0.5 - 2.0	0.6 – 2.4
<i>Added to BORE-GEL® slurry (35 lb/100 gallons) or (42 kilograms per m³)</i>	lb/100 gal	kg/m³
• To help reduce filtration rate and improve borehole stability	0.5 – 2.0	0.6 – 2.4

Note:

Very salty waters may require twice as much PAC-L modified natural cellulosic polymer as fresh water. Preferably, PAC-L modified natural cellulosic polymer should be mixed in fresh water before it is added to very salty water.

Packaging PAC-L modified natural cellulosic polymer is packaged in 50-lb (22.7 kg) bags.

Availability PAC-L modified natural cellulosic polymer can be purchased through any Baroid Industrial Drilling Products Retailer. To locate the Baroid IDP retailer nearest you contact the Customer Service Department in Houston or your area IDP Sales Representative.

**Baroid Industrial Drilling Products
Product Service Line, Halliburton
3000 N. Sam Houston Pkwy. E.
Houston, TX 77032**

Customer Service	(800) 735-6075 Toll Free	(281) 871-4612
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